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PALOMAR
AMATEUR
RADIO CLUB

October 2022 SCOPE Newsletter

First off, let me apologize for THREE emails (for some of you) this week! A SCOPE, a PARC Announce, and now another SCOPE, but I failed to put the address in the SCOPE for the Meeting!

I have also added another event to the "Upcoming Events" so look for the OFD Open House info! Updates are in BLUE below.

73 de K6JPE

October 2022 General Meeting

Auction! (IN-PERSON ONLY)

Please join us on Wednesday, October 05, 2022
at Harding Community Center
3096 Harding St, Carlsbad, CA 92008

• Sellers can setup between 6:00 and 6:30
• Please have your name and on all items
• Buyers can examine the merchandise between 6:30 and 7:00
• The auction will start at 7:00
• All items should have some nexus to amateur radio
• Information on the condition of the item is appreciated
• Small items can be grouped together in a lot
• Any item that sells for less the $10 will be considered a donation to the club
• We accept cash, credit cards, and checks (from members only)
• We need to be out of the building by 9:00 SHARP!

Reminder, there is NO zoom link for this meeting. We are unable to support proxy or remote bids.
Thank you!

Upcoming Events

19 October 2022 - MOVE truck

San Diego friends and colleagues, we will have the emergency communications and humanitarian support MOVE truck visit us for a demonstration and tour at our IEEE San Diego Section ex-com meeting on 19 October 2022.

Here is the link to RSVP: https://events.vtools.ieee.org/m/307494

There is a variety of communications equipment in the truck, including amateur radio.

It's brand new, just arrived, is based in San Diego, and has already been deployed for the first time.

Michelle W5NYV

22 October 2022 - OFD Open House

No photo description available.

Join the Oceanside Fire Department on Saturday, October 22, 2022 from 9:00 AM until 2:00 PM at the Fire Training Center (FTC) 110 Jones Rd, Oceanside CA. Meet and greet with Fire/Paramedic, and Lifeguard crews & see the equipment they use, visit other emergency agencies (including CERT!), and enjoy other family activities at this fun event!

(Multiple dates) - Safety Radio

Are your ham radio operating skills rusty? Two upcoming public events will help you practice and learn.

Saturday, October 22, 2022 -- Palomar Hill Climb

Do you like fast cars? Hams will provide communications support for a closed-course car racing event on Palomar Mountain on Saturday, October 22, 2022. No experience or equipment needed. If you are a new ham, you will be matched with an experienced ham.

The staggered-start event starts at 7 a.m. and ends at 5 p.m. Hams will be involved with tracking the location of cars as they race up the twists and turns of South Grade Road which CHP will close for the day. During the event, hams will rotate between operating locations to provide variety and to broaden experience. If you do not have a radio, loaners will be provided.

For more information or to volunteer for radio fun, contact the ham leader for the Hill Climb event, Per Martin AJ6PJ <perhuntermartin@gmail.com>.

Saturday, December 3, 2022 -- ABC50

A few more hams are needed to add depth to the bench for the Anza Borrego Cuyamaca 50 Mile Run (ABC50) on Saturday, 12/3/2022. Hams track runners as they move along the event course which stretches across the Cuyamaca and Laguna Mountain Ranges down to the desert floor near Shelter Valley.

New hams are welcome. No experience required. All Aid Stations are covered already with at least two experienced hams. The hope is to increase staffing at each aid station to give more hams field operating experience. Shifts are available from the early morning to the late evening.

For more information or to volunteer for this backcountry communications adventure, contact the ham leader for the ABC50 event, Marty AF5T <mlatterich@gmail.com>.

President's Report

Fellow HAMs, we've got a pretty packed SCOPE this month, thanks to those who submitted articles and events! I'm looking forward to seeing many of you at the Auction in just a few days time for the annual re-garaging of equipment. And remember, NO ZOOM for the Auction! Sorry, we just can't support proxy/remote bidding. Otherwise, check out all the exciting activities above, and thoughtful articles below!

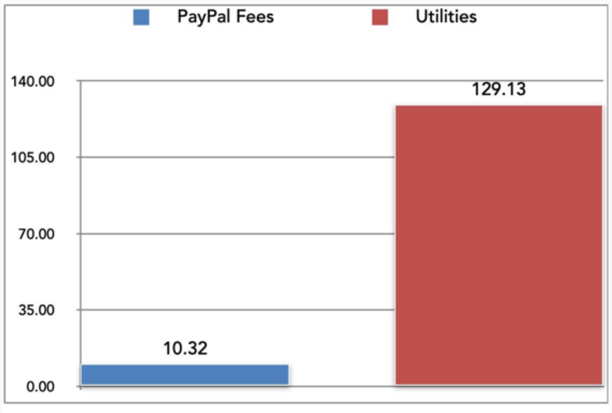
We also have a quick survey to find out what level of interest and ability our members have, please take a moment to fill out this quick two question survey: https://www.surveymonkey.com/r/QJCQFPB

73 de K6JPE

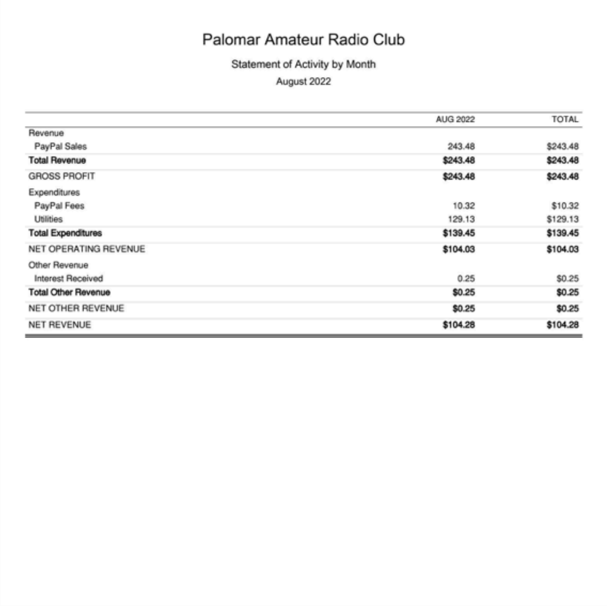
Membership Report

Please keep an eye on your email for direct updates from your Membership Chair, Glen AI6RR, for updates about your individual membership status and renewal dates. You can always reach out to him directly or Check Your Membership on the website.

Financial Report



PARC Expenses Aug 2022



Palomar Amateur Radio Club

Statement of Activity by Month

August 2022

	AUG 2022	TOTAL
Revenue		
PayPal Sales	243.48	$243.48
Total Revenue	**$243.48**	**$243.48**
GROSS PROFIT	**$243.48**	**$243.48**
Expenditures		
PayPal Fees	10.32	$10.32
Utilities	129.13	$129.13
Total Expenditures	**$139.45**	**$139.45**
NET OPERATING REVENUE	**$104.03**	**$104.03**
Other Revenue		
Interest Received	0.25	$0.25
Total Other Revenue	**$0.25**	**$0.25**
NET OTHER REVENUE	**$0.25**	**$0.25**
NET REVENUE	**$104.28**	**$104.28**

Open Research Institute

Open Research Institute is a non-profit dedicated to the health and success of open source digital radio work. We welcome anyone that wants to contribute towards technical innovation in amateur radio.

Thank you so much to those that visited ORI at QSO Today Ham Expo! We hope you found it as enjoyable, vibrant, and inspiring as we did.

Here is how to get involved with what we do:

https://www.openresearch.institute/getting-started/

Sign up for our non-technical, friendly, and accessible newsletter here: https://www.openresearch.institute/newsletter-subscription/

All ORI work is published as it is created and is free to the general public at no cost.

Here is a summary of the five talks, three project exhibits, booth, and lounge.

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Ribbit, a new digital text messaging mode for UHF/VHF emergency communications

Presentors: Pierre Deliou W4CKX, Ahmet Inan

Ribbit is a novel digital text messaging mode for VHF/UHF communications for recreational and emergency use which radically increases the density of information transmitted by spectrum used. It leverages the computing power of the modern smartphone to increase the capabilities of any Handy Talkie without requiring any additional hardware. Its redundant distributed nature allows it to function even when connectivity to the internet is lost during emergencies. Ribbit is open source and currently in its early stages of development.

Get the free Android app here: https://play.google.com/store/apps/details?id=com.aicodix.rattlegram

Artificial Intelligence and Machine Learning and the Future of Amateur Radio

Artificial Intelligence and Machine Learning are all over the news, taking over academia, getting billions of dollars of commercial investment, and will change both computer networking and wireless communications in fundamental ways. What does the future of amateur radio look like when radios use machine learning to operate? How does our relationship to the bands change with cognitive radio? Where are we in this transformation? What will happen next?

A working group to produce an AI/ML Handbook for Amateur Radio is forming now. Register your interest here: https://forms.gle/4dZsLkmyxCkp8JiF6

Truly Excellent Digital Voice Quality: Opulent Voice

Presentors: Paul Williamson KB5MU

Digital voice on amateur radio to date has generally had terrible voice quality, due to both a perception of limited available bandwidth and the convenience (to manufacturers) of repurposing commercial protocols with their older, proprietary, low-bitrate voice codecs. We present and demonstrate a modern digital voice design that can be used on 222 MHz and above with truly excellent voice quality.

Source code here: https://github.com/phase4ground/opv-cxx-demod

Haifuraiya - Open Source HEO Satellite Project Proposal

Presentors: Michelle Thompson W5NYV

Haifuraiya is an open source highly elliptical orbit amateur satellite project proposal. This presentation will walk through the high-level project proposal. The project features a digital microwave multiplexing transceiver with a failover transponder mode, has an international volunteer team open to community participants, and complies with debris mitigation guidance from the United States Federal Communications Commission.

Repository here: https://github.com/phase4ground/documents/blob/master/Papers_Articles_Presentations/Slide_Presentations/haifuraiya/README.md

User Authentication for Amateur Satellites

Presentors: Paul Williamson KB5MU

After a brief discussion of the reasons why user authentication is needed on an amateur satellite service system, we'll cover a proposed system to implement reasonably secure user authentication on a P4XT digital multiplexing satellite transponder, within the bounds of the (United States) rules.

We had three project showcases in the Project Gallery

Each Gallery had a Q&A tab, a poster or document, links to any papers, and a link to any associated video presentations.

1) Ribbit, a distributed digital messaging platform

2) Opulent Voice - High Bitrate Digital Voice and Data

3) Open Source Satellite Work is Free of ITAR/EAR

Kumospace Lounge

Thank you to Ham Expo for providing fun and attractive interactive virtual Lounges at the conference. We truly enjoyed visiting with everyone that dropped by these spaces to share their stories, successes, challenges, and hopes.

Michelle Thompson W5NYV
<mountain.michelle@gmail.com>

QSL?

Did you start building a 2-meter (VHF) Fox Hunt Antenna when the club had a 'Build Night' way back before SARS-CoV-2 (ie; COVID19) hit the world?

Did you finish it?

Would you like to finish it?

Did you take one of the Offset Attenuator kits for your antenna?

Did you assemble it?

Please let the PARC Board know your interest in completing your antenna build!

If you took an Attenuator kit, but do not plan to finish your antenna, please consider returning it someone else can utilize it.

If there is enough interest, we may add another antenna build night. If you completed your antenna, bring it to the club the December 7th club meeting and you can get it swept with a Spectrum Analyzer to measure its accuracy.

73,
Glen AI6RR
PARC Membership Chair

Ham Radio Is Dead

Why?

{Public perception and among young people:
1. Just a bunch of old geeks who spend most of their time using Morse code.
2. Many don't know how to use their cellphone apps.
3. They think Facebook is still social media.
4. Never heard of TikTok, Instagram, etc.

Got your attention? Does it sound familiar?
You've heard it at Club meetings, especially when the club has urged you to do some mentoring of possible new hams.
It is a nationwide, probably even a worldwide of amateur radio, and it will have significant impact on our hobby if we fail to attract the new generation.
The ARRL recognized this and started an effort to turn it around by demonstrating that 21 st . century ham radio is far different from what the public thinks.
Starting early this year the ARRL started the "ARRL Club Grant Program". With money made available from the ARDC (Amateur Radio Development Corporation), the League created an opportunity for any ham or club to request grants to fund modernization of club or personal hams shacks.
The Board of Directors decided to ask for a grant. NN3V (Charlie) and a group of Club members are dedicating time (a lot) to prepare the extensive documentation to write and complete the request. It must be submitted by November 4 th . at 16:00 PST.
So far they have invested some 100 hours designing a total site upgrade and submitting 18 documents required for the grant request. More effort is needed.
Should PARC be granted the funds, our transceiver site will be fully upgraded to 21 st . century remote controlled ham radio equipment.
Grants will be announced by the ARRL in Feb. 2023.
The upgrade is the "PARC" Modernization, and will:
1. Finish upgrading the internet service to commercial grade.
2. Install a new tower and remote-controlled HF transceiver (Flex 6400) with a SteppIr antenna.
3. Modernize the cabling and infrastructure of the site.
4. Refurbish or replace antennas on the existing tower.

5. Install SDR receivers for research of communications technology.
6. Equip the site for on-site or remote experimentation for new services in ham radio.

This will be a lot of work. It is an opportunity for regular club members to regain enthusiasm about ham radio by:
1. Getting involved with club activities on Palomar Mountain. If not on the mountain, helping organize equipment for the installations.
2. Engage in the tried-and-true mentoring activities that were a hallmark of the hams who mentored us by:
a. Helping attract people who are interested in getting a ham license

b. Visit a local school or radio club with young hams. Tell them about ham radio and invite them to a club meeting.
c. Comment on your ham experience and the enjoyment you have had.
d. Invite them to participate in the modernization effort giving them an excellent chance to learn a lot about technology, practical electronics and have great enjoyment by seeing the beautiful scenery at the Palomar Mountain club site.

PARC NEEDS YOUR HELP!

Should PARC receive the grant we will have a unique opportunity to serve our fellow hams.
This needs volunteer help with:

- Helping transport some of the new hardware up to Palomar Mountain.
- Getting involved with planning and helping the design and construction of the renovated site.
- Attracting new people to ham radio by either mentoring them or describing the opportunity to learn practical technology:

a. Young folks who show interest in getting a ham license.
b. Folks who are already working for their license.
c. Informing organizations: ARES, CERT, Red Cross, and other ham clubs about PARC's plan.
d. Contacting schools (medium, high and college) and getting them interested in the opportunity to participate and learn.
Those organizations must be informed, in advance of the project completion.
PARC club members can encourage them to think about ways in which they will use the new technology (DMR, C4FM, IRLP, Winlink, etc.) to improve the efficiency and reach of what they do. Tell them so when the new services are offered PARC can demonstrate and offer the services.

Please contact NN3V if you are interested in helping.

Email: nn3v@arrl.net
Cellphone: 619-368-7617

Your Board of Directors

Call Sign.	Name.	Position
K6JPE	Joe	President
KD9LF	Chris	Vice-President
W6TQS	Jim	Secretary
K2VO	Jim	Treasurer

AI6RR	Glen	*Membership Chair*
AJ6FQ	Ron	Director #1
W6XM	John	Director #2
KM6CXW	Keith	*Scope Editor*
KF6WTN	Mark	*Repeater Chair*
NN3V	Charlie	Site Chair

Member Satisfaction Survey

Scope Articles/Content

Please submit articles or content to scope@palomararc.org if you have done something interesting please share with us! We'd love to see your HAM shacks, mobile rigs, hiking rigs, stories about your hikes or expeditions, anything you think other club members may be interested in reading about.

Donate

Palomar Amateur Radio Club is a 501(c).(3) Nonprofit organization

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